

Title (en)
ELECTRIC POWER SEMICONDUCTOR DEVICE

Title (de)
ELEKTRISCHE LEISTUNGSHALBLEITERVORRICHTUNG

Title (fr)
DISPOSITIF ÉLECTRIQUE À SEMI-CONDUCTEUR DE PUISSANCE

Publication
EP 2889902 B1 20210922 (EN)

Application
EP 13832786 A 20130809

Priority

- JP 2012186243 A 20120827
- JP 2013071622 W 20130809

Abstract (en)
[origin: EP2889902A1] An electric power semiconductor device includes a heat transfer plate (4) to which a heat radiation material (9) is adhered through an insulating layer (8), a printed wire board (3) that is disposed in such a way as to be spaced a predetermined gap apart from the heat transfer plate (4) and in the vicinity of an electrode strip (32) formed on the outer side of which, an opening portion (3a) is provided, a n electric power semiconductor element (2) that is disposed between the heat transfer plate (4) and the printed wire board (3) and whose rear side is adhered to the heat transfer plate (4), and a wiring member (5), one end of which is bonded to a first bonding portion of a main power electrode (21C) formed on the front side of the electric power semiconductor element (2) and the other end of which is bonded to a second bonding portion (32p); at least part of the second bonding portion (32p) is included in a space that extends from the main power electrode (21C) to the printed wire board (3) in the vertical direction, and the first bonding portion is included in a space that extends from the opening portion (3a) in the vertical direction.

IPC 8 full level
H01L 23/36 (2006.01); **H01L 23/13** (2006.01); **H01L 23/373** (2006.01); **H01L 23/49** (2006.01); **H01L 23/492** (2006.01); **H01L 25/07** (2006.01)

CPC (source: EP KR US)
H01L 23/13 (2013.01 - EP KR US); **H01L 23/36** (2013.01 - EP US); **H01L 23/3735** (2013.01 - EP KR US); **H01L 23/492** (2013.01 - EP KR US); **H01L 24/06** (2013.01 - KR); **H01L 24/29** (2013.01 - KR); **H01L 24/37** (2013.01 - EP US); **H01L 24/40** (2013.01 - EP US); **H01L 24/41** (2013.01 - EP US); **H01L 24/45** (2013.01 - KR); **H01L 24/48** (2013.01 - KR); **H01L 24/49** (2013.01 - KR); **H01L 24/73** (2013.01 - EP KR US); **H01L 24/83** (2013.01 - KR); **H01L 24/85** (2013.01 - KR); **H01L 24/92** (2013.01 - EP KR US); **H01L 25/07** (2013.01 - US); **H01L 25/072** (2013.01 - KR); **H01L 25/18** (2013.01 - US); **H05K 1/0203** (2013.01 - KR US); **H01L 24/06** (2013.01 - EP US); **H01L 24/29** (2013.01 - EP US); **H01L 24/32** (2013.01 - EP US); **H01L 24/45** (2013.01 - EP US); **H01L 24/48** (2013.01 - EP US); **H01L 24/49** (2013.01 - EP US); **H01L 24/83** (2013.01 - EP US); **H01L 24/84** (2013.01 - EP US); **H01L 24/85** (2013.01 - EP US); **H01L 25/072** (2013.01 - EP US); **H01L 2224/04026** (2013.01 - EP US); **H01L 2224/04034** (2013.01 - EP US); **H01L 2224/04042** (2013.01 - EP US); **H01L 2224/0603** (2013.01 - EP US); **H01L 2224/06181** (2013.01 - EP US); **H01L 2224/29111** (2013.01 - EP US); **H01L 2224/32245** (2013.01 - EP US); **H01L 2224/37012** (2013.01 - EP US); **H01L 2224/37147** (2013.01 - EP US); **H01L 2224/4005** (2013.01 - EP US); **H01L 2224/40105** (2013.01 - EP US); **H01L 2224/4024** (2013.01 - EP US); **H01L 2224/4118** (2013.01 - EP US); **H01L 2224/45015** (2013.01 - EP US); **H01L 2224/45124** (2013.01 - EP US); **H01L 2224/45144** (2013.01 - EP US); **H01L 2224/45147** (2013.01 - EP US); **H01L 2224/48091** (2013.01 - EP US); **H01L 2224/4824** (2013.01 - EP US); **H01L 2224/48472** (2013.01 - EP US); **H01L 2224/49175** (2013.01 - EP US); **H01L 2224/73263** (2013.01 - EP US); **H01L 2224/73265** (2013.01 - EP US); **H01L 2224/83424** (2013.01 - EP US); **H01L 2224/83447** (2013.01 - EP US); **H01L 2224/8346** (2013.01 - EP US); **H01L 2224/83801** (2013.01 - EP US); **H01L 2224/84447** (2013.01 - EP US); **H01L 2224/84801** (2013.01 - EP US); **H01L 2224/85205** (2013.01 - EP US); **H01L 2224/92247** (2013.01 - EP US); **H01L 2924/00014** (2013.01 - EP); **H01L 2924/10254** (2013.01 - EP US); **H01L 2924/10272** (2013.01 - EP US); **H01L 2924/1033** (2013.01 - EP US); **H01L 2924/1203** (2013.01 - EP US); **H01L 2924/13055** (2013.01 - EP US); **H01L 2924/13091** (2013.01 - EP US); **H01L 2924/15724** (2013.01 - EP US); **H01L 2924/15747** (2013.01 - EP US); **H01L 2924/1576** (2013.01 - EP US); **H01L 2924/16152** (2013.01 - EP US); **H01L 2924/16172** (2013.01 - EP US); **H01L 2924/16251** (2013.01 - EP US); **H01L 2924/181** (2013.01 - EP US); **H01L 2924/19107** (2013.01 - EP US)

Cited by
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